

REMARKS

Claim Rejections

Claims 24-29, 36-40, and 51 stand rejected as obvious in view of either U.S. Patent No. 6,737,160 or 7,011,723 (Full et al.)

Claim Amendments

The claims have been amended to further patentably distinguished over Full et al.

Applicant's Invention Would Not Have Been Obvious

According to the Office action, “[i]t would have been expected that a beam of such dimensions would have been ‘flexible’ as the term is a relative term and one skilled in the art would have understood that a beam of the dimensions specified would have had some degree of flexibility therein.” According to MPEP § 2143.03, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” However, the flexibility of the beam is not explicitly taught by Full et al., and the Office action has not demonstrated that one of ordinary skill in the art would have known that the beam in Full et al. was flexible.

The Oxford Dictionary of English (2 ed., revised) defines flexible as “capable of bending easily without breaking.” It is not apparent from the beam dimensions alone that the beam would have been “capable of bending easily without breaking.” The flexibility of an object depends on factors that include, but are not limited to, the object’s dimensions and compositions. However, the Office action has not shown that Full et al. specifies the beam’s composition or otherwise suggests its flexibility. It is therefore not apparent from Full et al. alone that the beam in Full et al. is flexible.

As discussed in previous correspondence, in the context of the Full et al. disclosure, it appears that the beam 202 was a rigid beam. The disclosure of Full et al. is like the disclosures in the references: Autumn et al. article from Nature, entitled “Adhesive force of a single gecko foot-hair” (“Autumn et al.”) and the Liang article from Solid State Sensor and Actuator Workshop, entitled “Adhesion Force Measurements on Single Gecko Setae” (“Liang et al.”), previously cited by the examiner. As previously discussed, the pin of Autumn et al. and Liang et al. is not a flexible beam that is used to apply a seta or a plurality of protrusions in such a way as to preload an adhesive force of the seta or protrusions and orient the seta or protrusions parallel

to a surface. Rather, in Autumn et al. and Liang et al., the pin is a rigid rod that functioned as a rigid base for a single setae. (Autumn Declaration of September 15, 2005, paragraphs 9-11).

The assertion that the beam in Full et al. is flexible based solely on its apparent dimensions is a factual assertion that is not properly based upon common knowledge. "The examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge." MPEP § 2143.03 B. That the dimensions of a minute beam, such as that in Full et al., imply its flexibility is precisely the kind of conclusion that requires citation and well-documented support. It is respectfully requested that the examiner provide some factual basis for the conclusion that the beam of Full et al. is flexible.

However, the MPEP also notes:

While 'official notice' may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 C.F.R. 1.113. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. MPEP § 2144.03 A.

Not only is the present application under final rejection, but the flexibility of the beam in Full et al. is not "capable of instant and unquestionable demonstration as being well-known" for at least the reasons that Full et al. does not discuss the beam composition or flexibility and that, as discussed above, the disclosure of Full et al. is similar to other disclosures cited by the examiner that explicitly specify a beam that is not flexible.

It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. MPEP § 2144.03 A.

Assertion of the flexibility of the very small beam in Full et al. is exactly the kind of specific knowledge or technical fact in an area of esoteric technology that the MPEP disallows without documentation.

"[I]f applicant challenges a factual assertion as not properly officially noticed or not properly based upon common knowledge, the examiner must support the finding with adequate evidence." MPEP § 2143.03 C. Because the factual assertion relied upon in the Office action is not properly officially noticed and not properly based upon common knowledge, it is respectfully requested that the rejection be withdrawn.

Additionally, the Office action faults the claims for "not recit[ing] the nexus between the beam and the preload force. Claims need not recite a purpose for each feature included therein, but rather need only claim novel, nonobvious statutory subject matter supported by the specification. However, the claims have been amended so as to clarify the nexus. This is not a narrowing amendment.

Conclusion

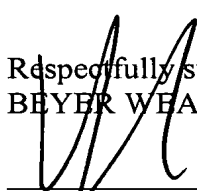
In view of the foregoing, it is submitted that all the claims are now in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicant's undersigned attorney at (510) 267-4106.

Please apply any other charges or credits to deposit account number 50-388 (Order No. LEWIP001).

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Respectfully submitted,
BEYER WEAVER LLP



William J. Egan, III
Reg. No. 28,411

P.O. Box 70250
Oakland, CA 94612-0250